FIG. 1

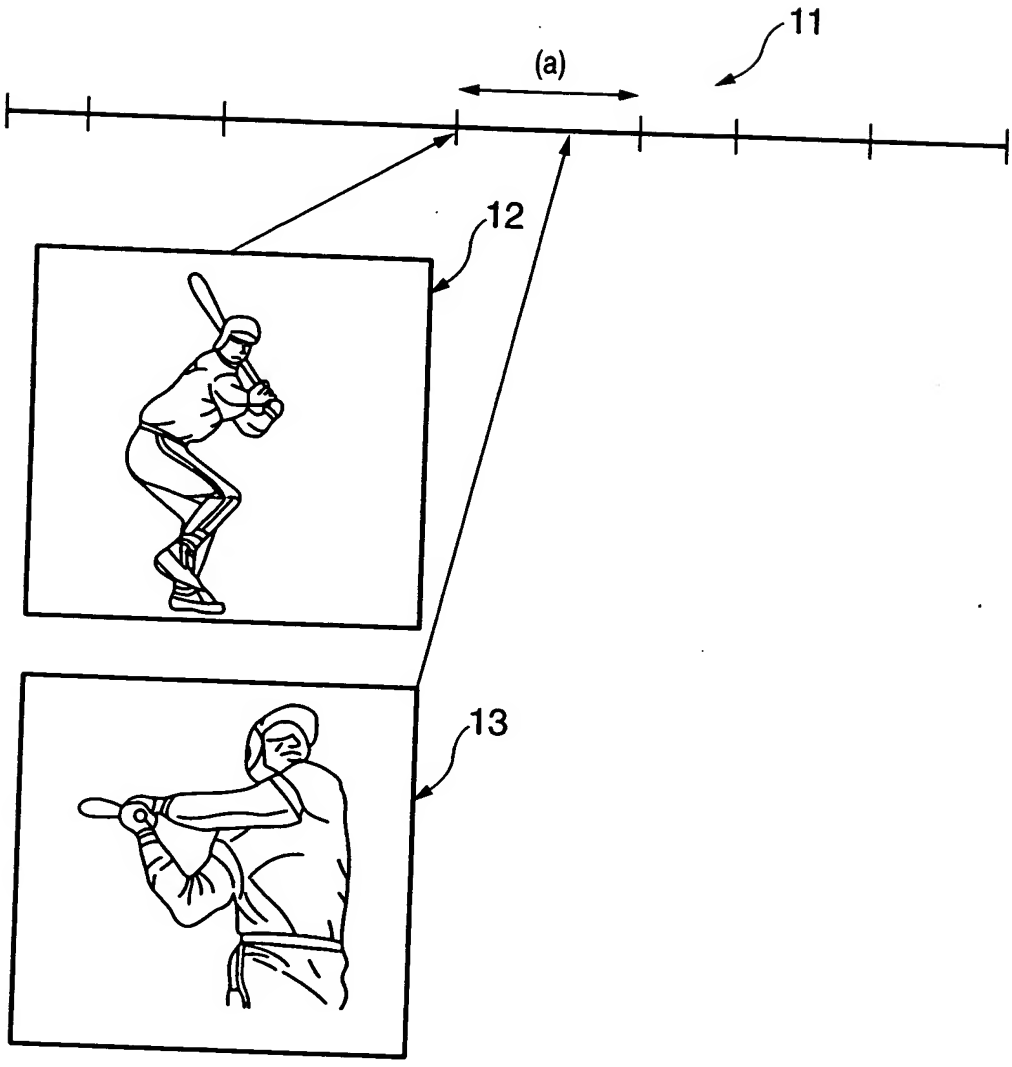


FIG. 2

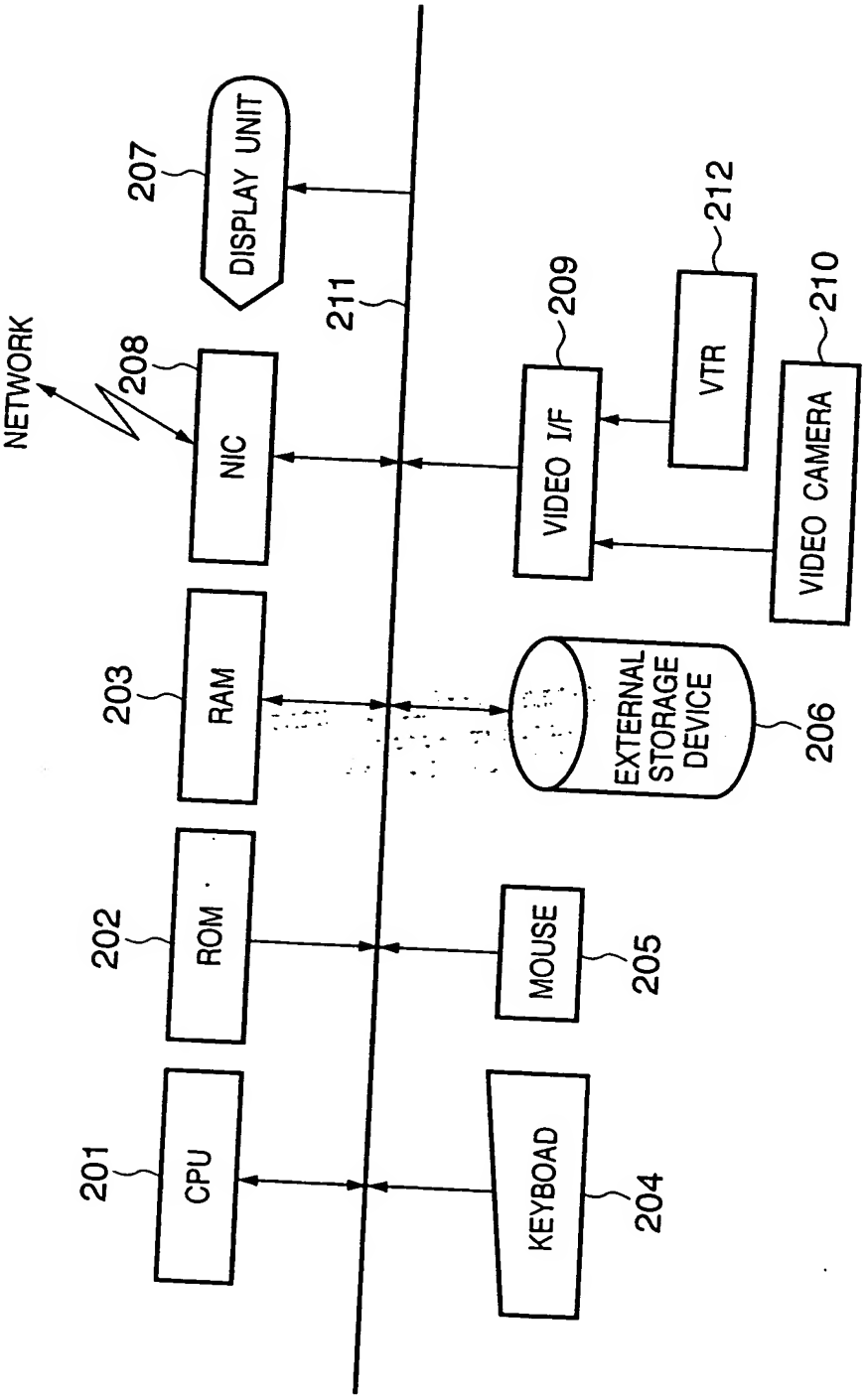

NETWORK
208
NIC
207
DISPLAY UNIT
211
209
VIDEO I/F
212
VTR
210
VIDEO CAMERA
203
RAM
EXTERNAL STORAGE DEVICE
206
202
ROM
MOUSE
205
201
CPU
KEYBOAD
204

FIG. 3

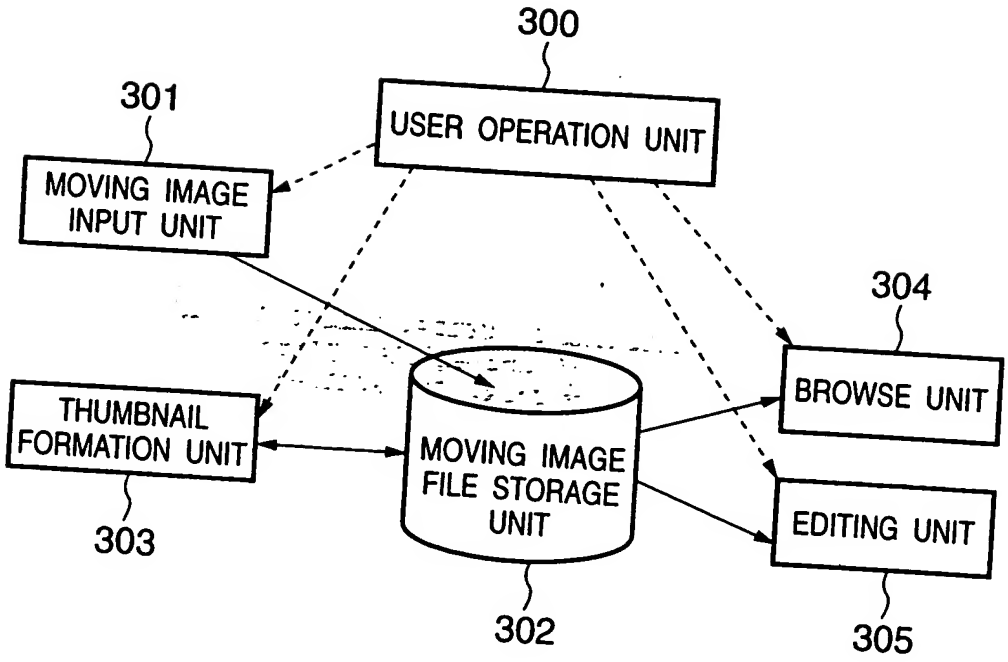

300
301
USER OPERATION UNIT
MOVING IMAGE INPUT UNIT
304
BROWSE UNIT
THUMBNAIL FORMATION UNIT
MOVING IMAGE FILE STORAGE UNIT
EDITING UNIT
303
302
305

FIG. 4

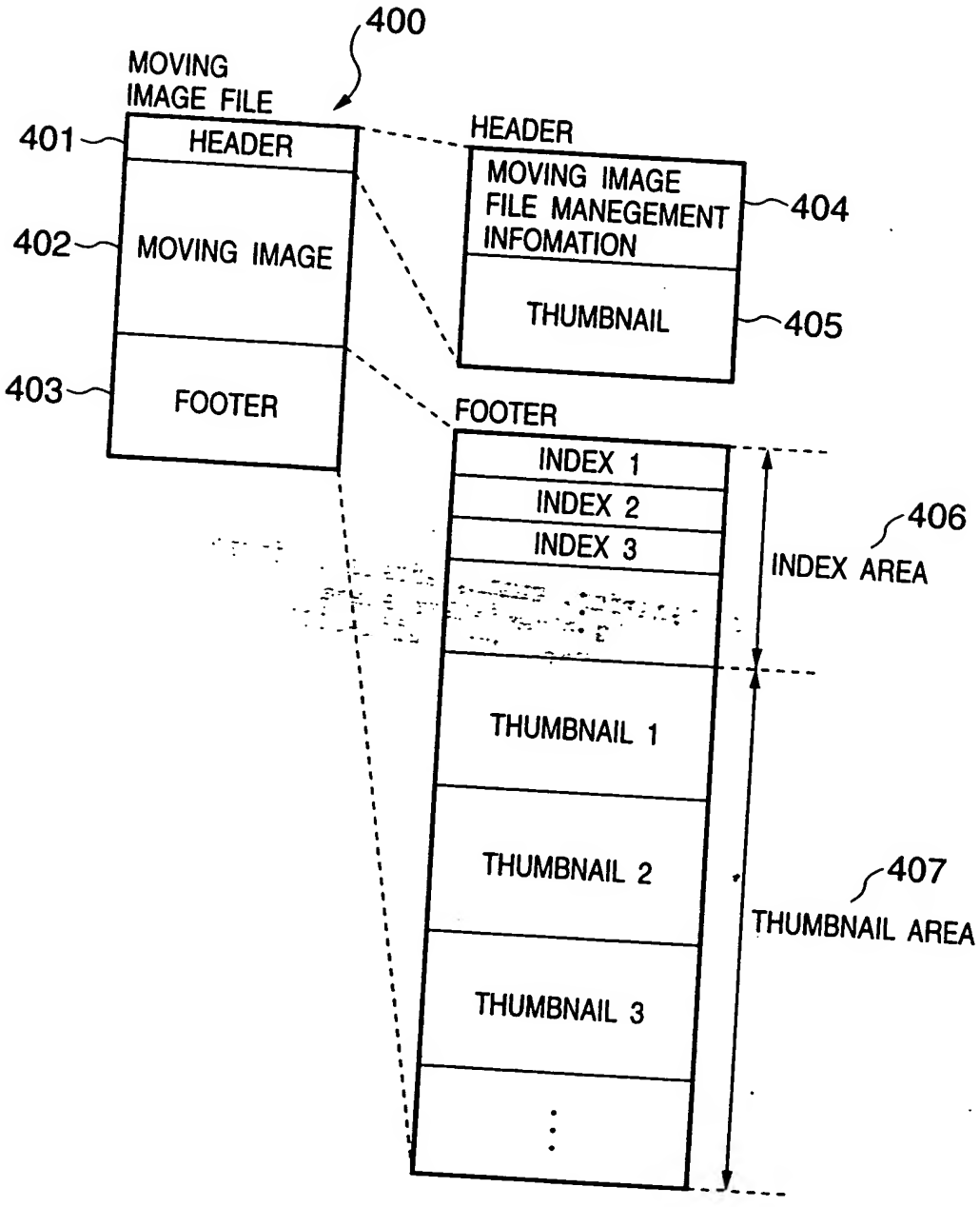

400
MOVING
IMAGE FILE
401
HEADER
402
MOVING IMAGE
403
FOOTER
HEADER
MOVING IMAGE
FILE MANEGEMENT
INFOMATION
404
THUMBNAIL
405
FOOTER
INDEX 1
INDEX 2
INDEX 3
406
INDEX AREA
THUMBNAIL 1
THUMBNAIL 2
407
THUMBNAIL AREA
THUMBNAIL 3

FIG. 5

Length (Bytes)	Contents
6	Start Point
6	End Point
2	Thumbnail Type ID
4	Thumbnail Offset

FIG. 6A

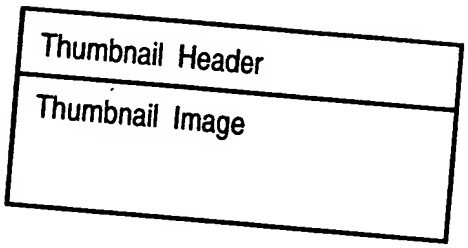


FIG. 6B

Length (Bytes)	Contents
2	Thumbnail Imege Size
6	Thumbnail Key Relative Point
4	Thumbnail Image Offset

FIG. 7

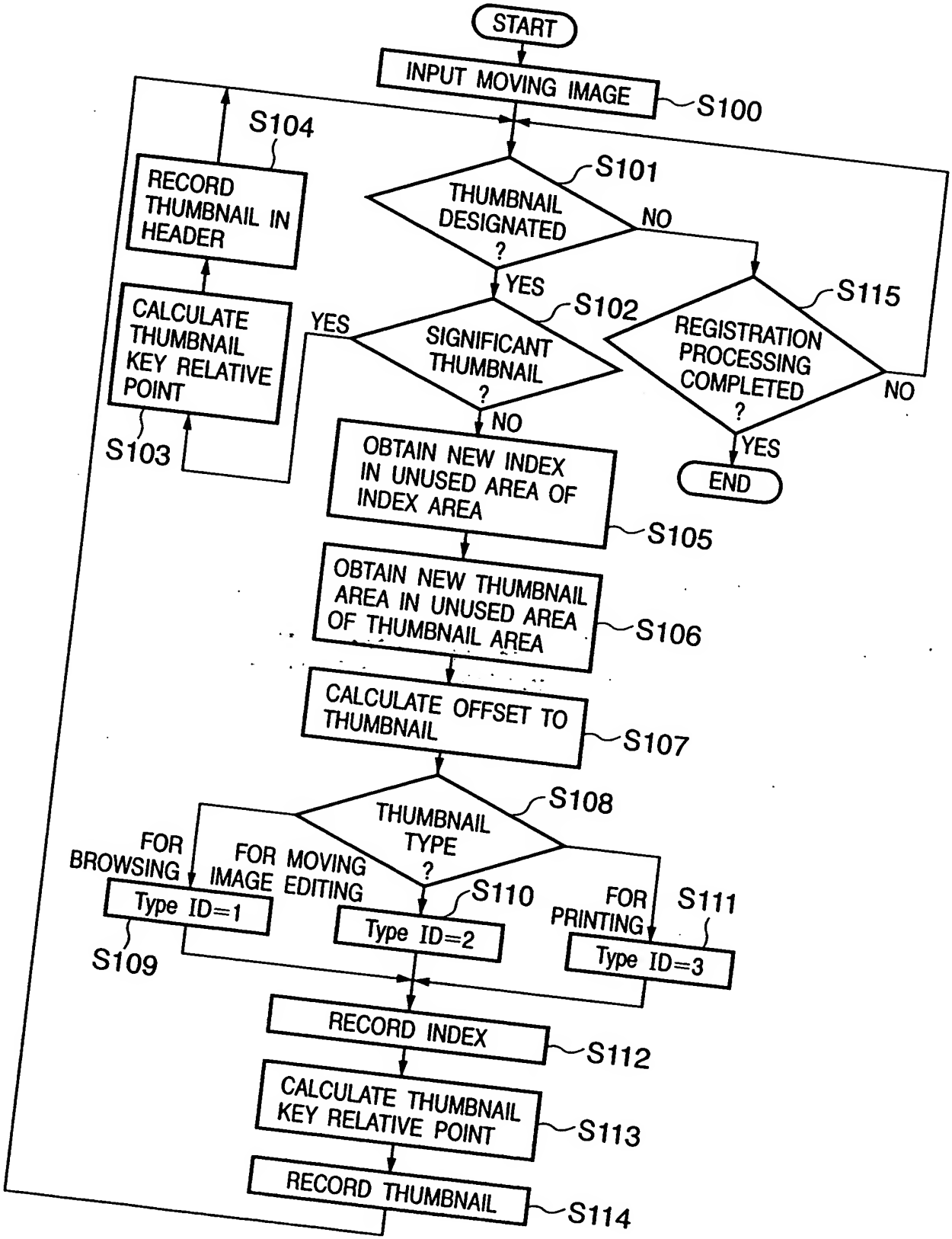

START
INPUT MOVING IMAGE
S100
S101
THUMBNAIL DESIGNATED ?
NO
YES
S102
SIGNIFICANT THUMBNAIL ?
YES
NO
S103
CALCULATE THUMBNAIL KEY RELATIVE POINT
S104
RECORD THUMBNAIL IN HEADER
S115
REGISTRATION PROCESSING COMPLETED ?
NO
YES
END
S105
OBTAIN NEW INDEX IN UNUSED AREA OF INDEX AREA
S106
OBTAIN NEW THUMBNAIL AREA IN UNUSED AREA OF THUMBNAIL AREA
S107
CALCULATE OFFSET TO THUMBNAIL
S108
THUMBNAIL TYPE ?
FOR BROWSING
FOR MOVING IMAGE EDITING
FOR PRINTING
S109
Type ID=1
S110
Type ID=2
S111
Type ID=3
S112
RECORD INDEX
S113
CALCULATE THUMBNAIL KEY RELATIVE POINT
S114
RECORD THUMBNAIL

FIG. 8A

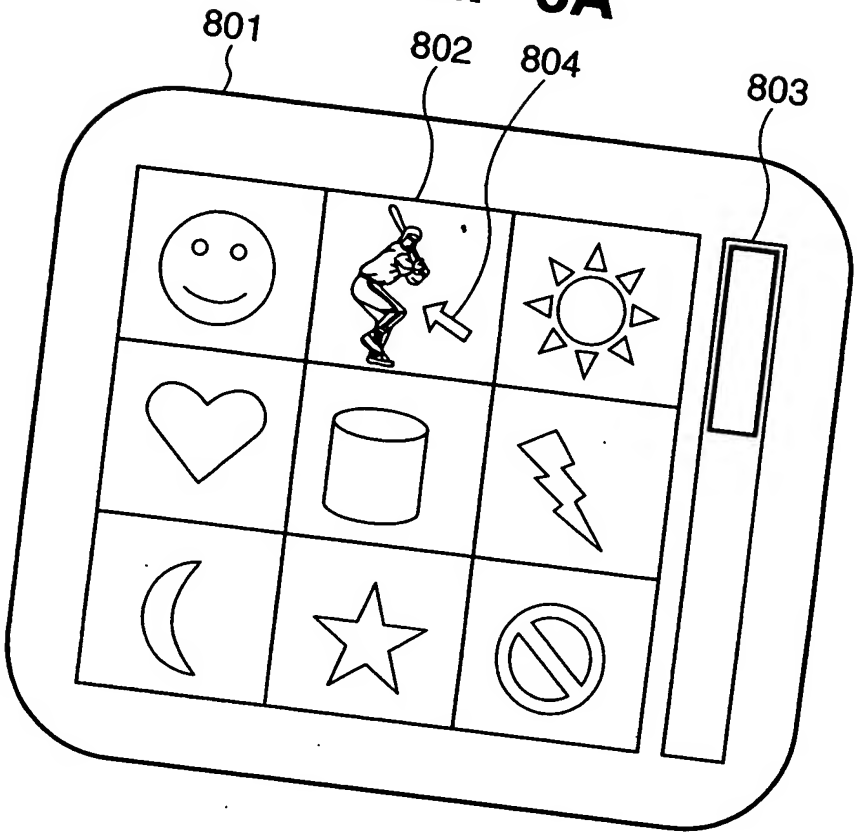


FIG. 8B

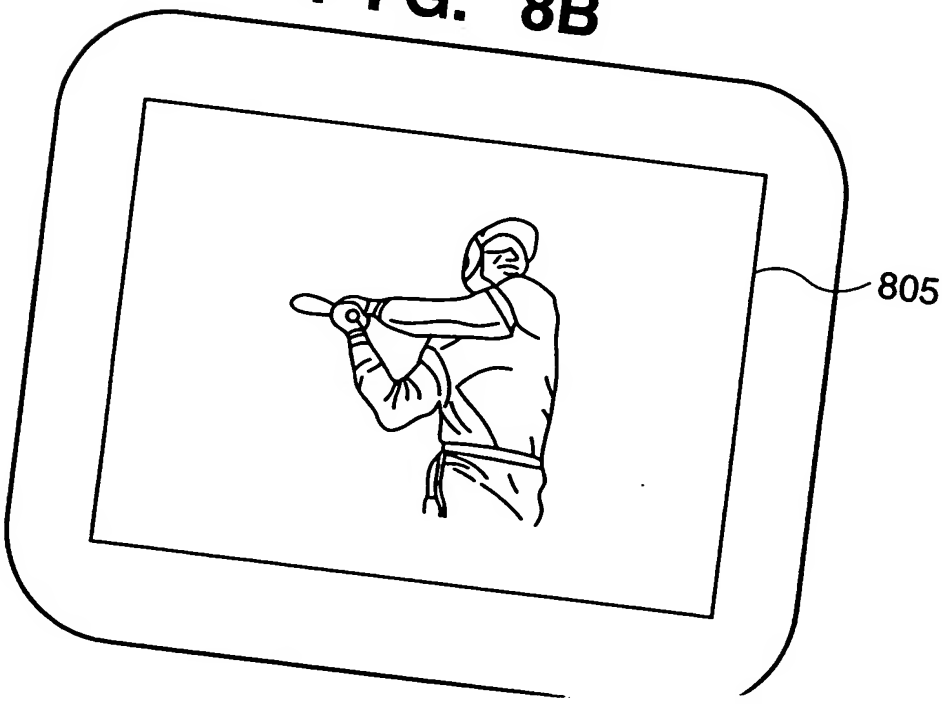


FIG. 9A

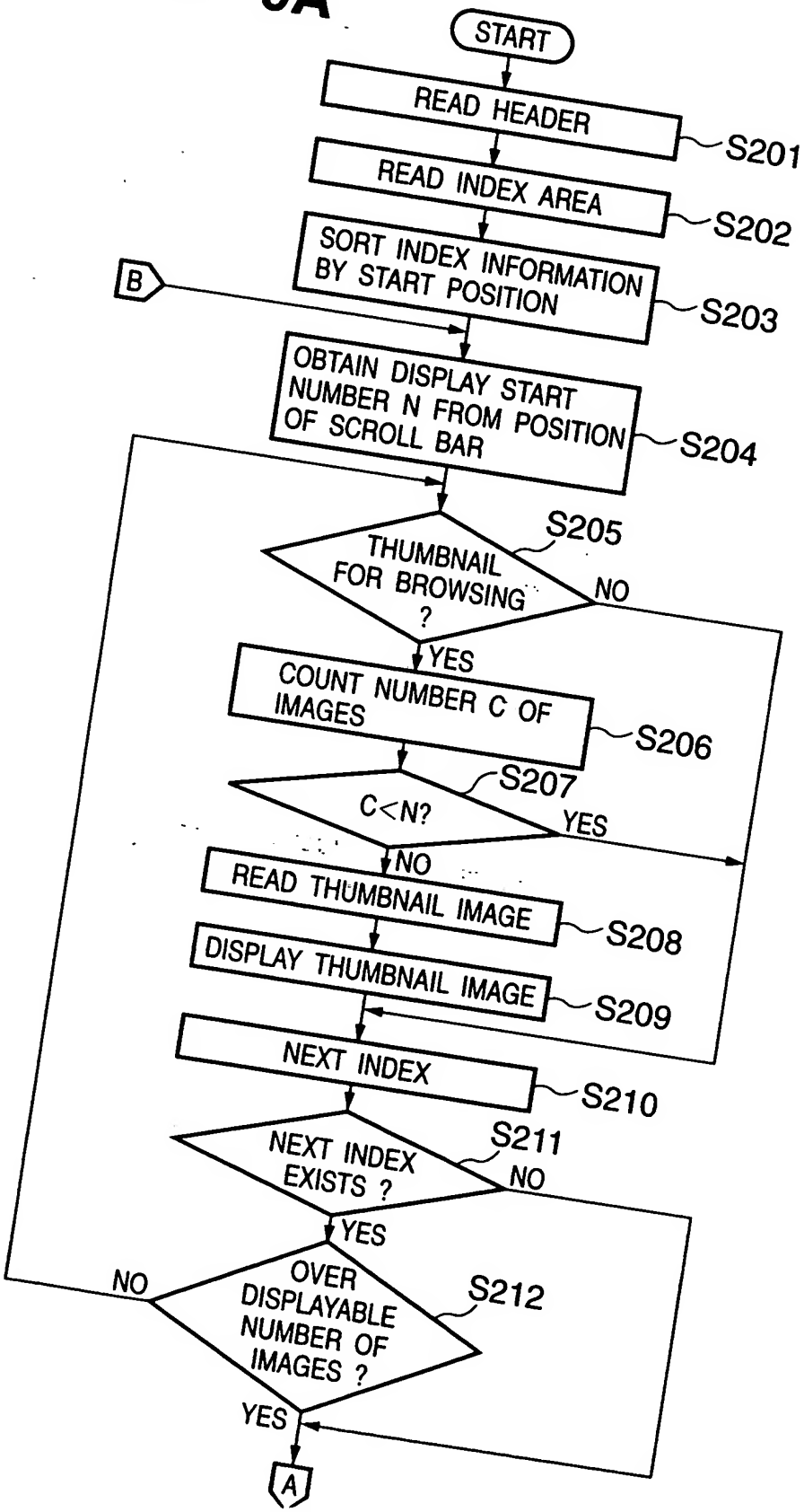

START
READ HEADER
S201
READ INDEX AREA
S202
SORT INDEX INFORMATION BY START POSITION
S203
B
OBTAIN DISPLAY START NUMBER N FROM POSITION OF SCROLL BAR
S204
S205
THUMBNAIL FOR BROWSING ?
NO
YES
COUNT NUMBER C OF IMAGES
S206
S207
C<N?
YES
NO
READ THUMBNAIL IMAGE
S208
DISPLAY THUMBNAIL IMAGE
S209
NEXT INDEX
S210
S211
NEXT INDEX EXISTS ?
NO
YES
NO
OVER DISPLAYABLE NUMBER OF IMAGES ?
S212
YES
A

FIG. 9B

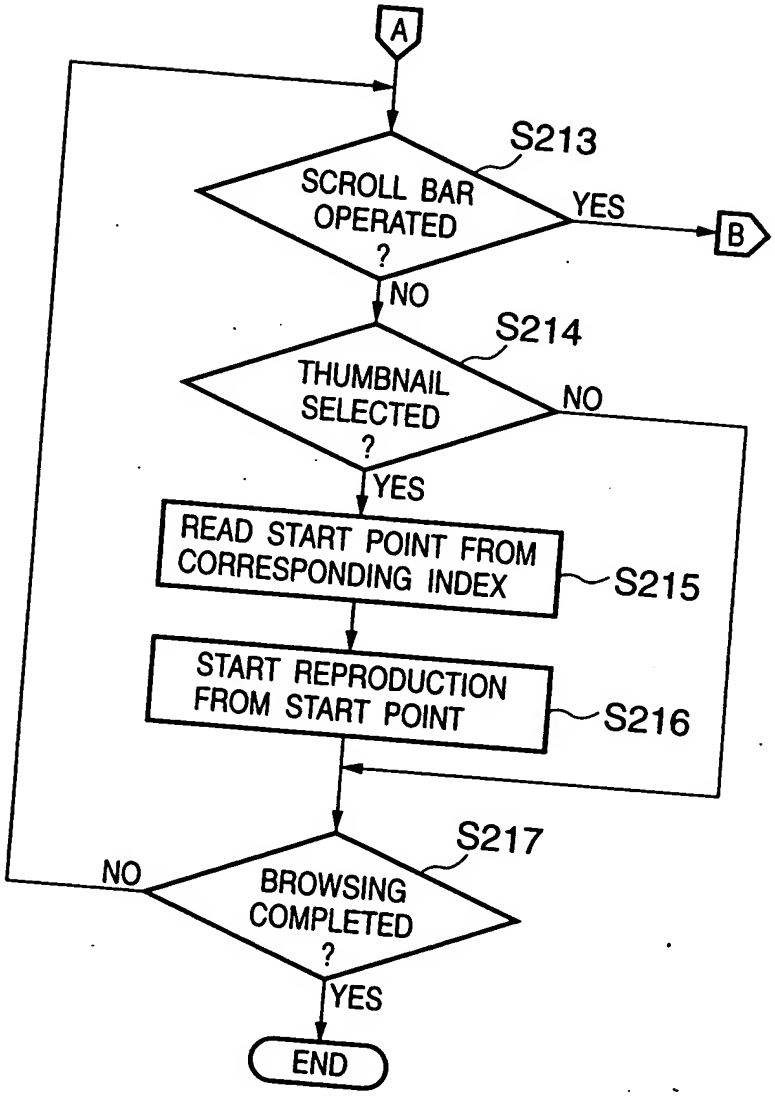

A
S213
SCROLL BAR OPERATED ?
YES
B
NO
S214
THUMBNAIL SELECTED ?
NO
YES
READ START POINT FROM CORRESPONDING INDEX
S215
START REPRODUCTION FROM START POINT
S216
S217
NO
BROWSING COMPLETED ?
YES
END

FIG. 10

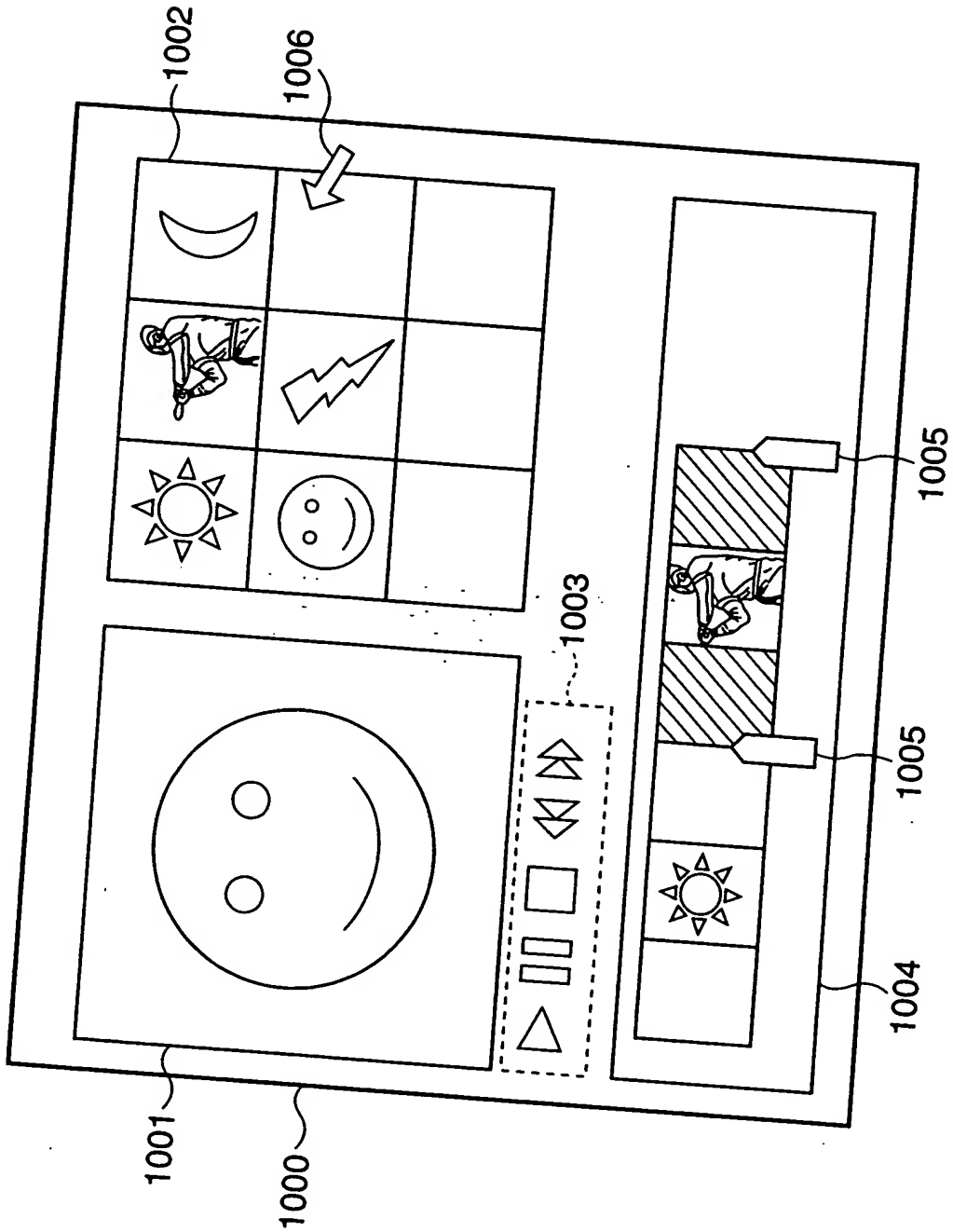


FIG. 11

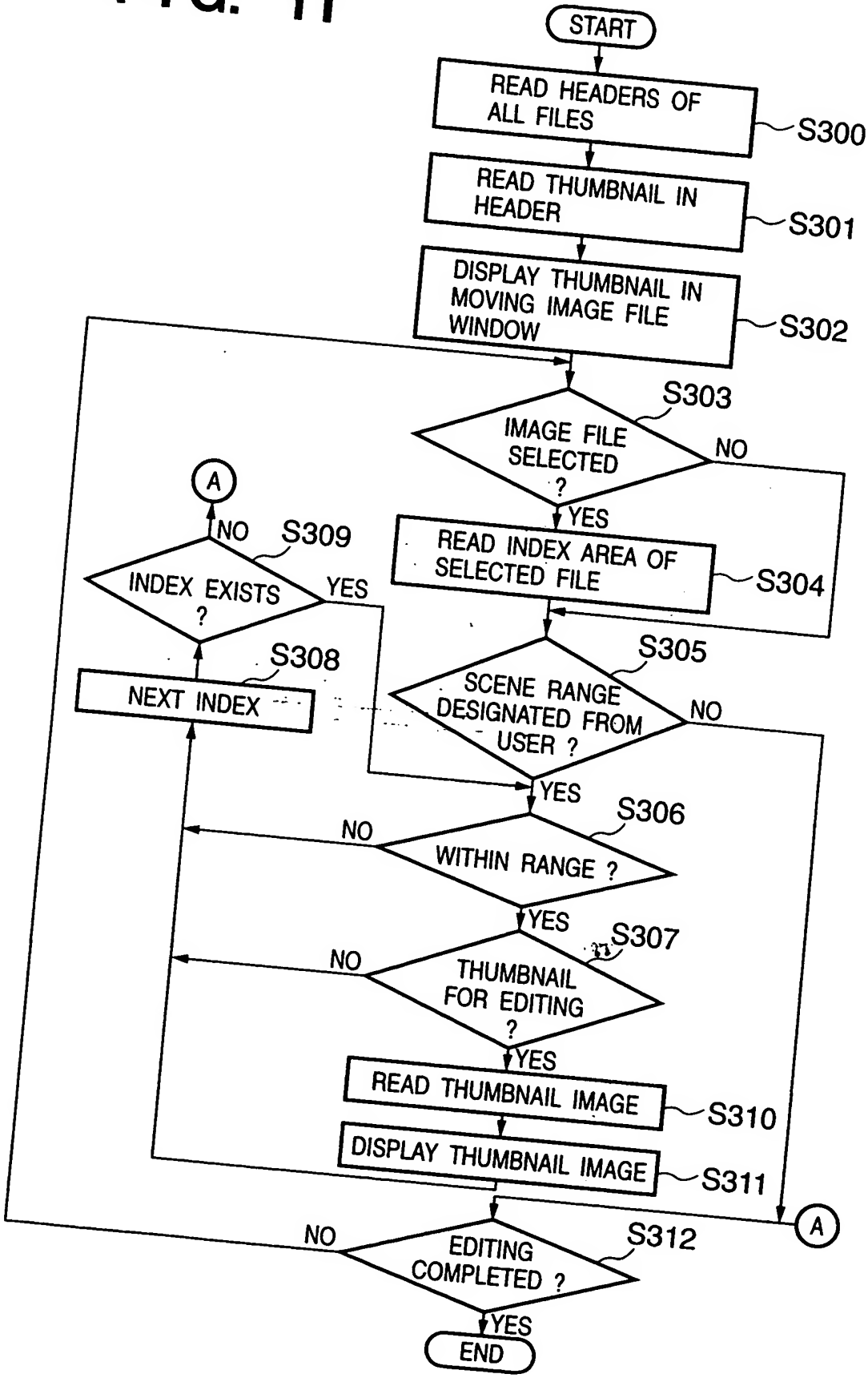
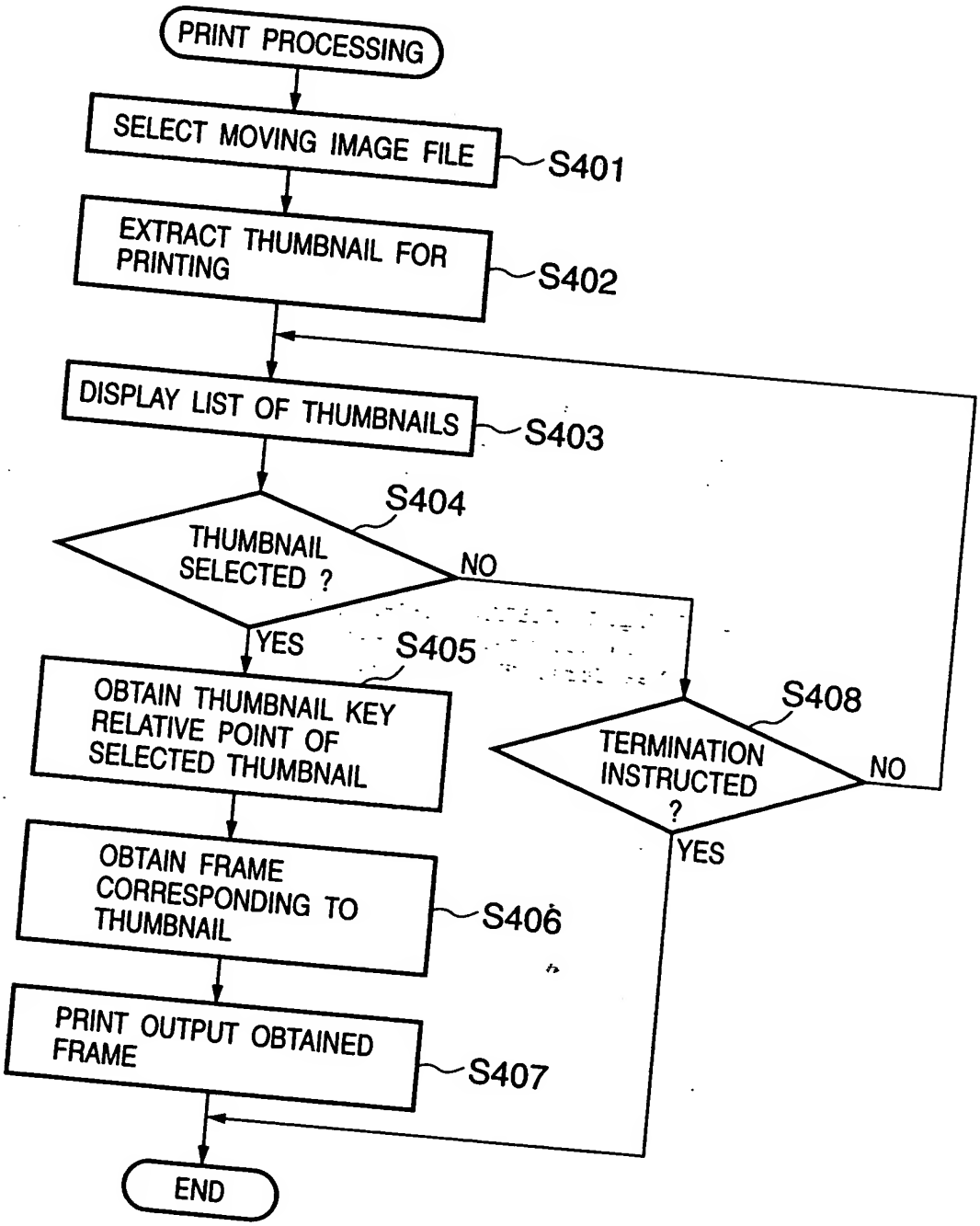

START
READ HEADERS OF ALL FILES
S300
READ THUMBNAIL IN HEADER
S301
DISPLAY THUMBNAIL IN MOVING IMAGE FILE WINDOW
S302
S303
IMAGE FILE SELECTED ?
NO
YES
READ INDEX AREA OF SELECTED FILE
S304
S305
SCENE RANGE DESIGNATED FROM USER ?
NO
YES
S306
WITHIN RANGE ?
NO
YES
S307
THUMBNAIL FOR EDITING ?
NO
YES
READ THUMBNAIL IMAGE
S310
DISPLAY THUMBNAIL IMAGE
S311
A
S312
EDITING COMPLETED ?
NO
YES
END
A
S309
INDEX EXISTS ?
NO
YES
S308
NEXT INDEX

FIG. 12


PRINT PROCESSING
SELECT MOVING IMAGE FILE
S401
EXTRACT THUMBNAIL FOR PRINTING
S402
DISPLAY LIST OF THUMBNAILS
S403
S404
THUMBNAIL SELECTED ?
NO
YES
S405
OBTAIN THUMBNAIL KEY RELATIVE POINT OF SELECTED THUMBNAIL
S408
TERMINATION INSTRUCTED ?
NO
YES
OBTAIN FRAME CORRESPONDING TO THUMBNAIL
S406
PRINT OUTPUT OBTAINED FRAME
S407
END